Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPD for Aroclor 1254 in samples 14/15 above QC limit (results very close to RL); these results are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 10, 12, and 16, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810705

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-700-102418 2FT	PCBs	Aroclor 1254	0.2	mg/kg	**0.2 J**	DU
B-700-102418-1 2FT	PCBs	Aroclor 1254	0.1	mg/kg	**0.1 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810706**; Report Issued **December 4, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-669-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-01	☒ PCB (8082A)
B-670-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-02	☒ PCB (8082A)
B-671-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-03	☒ PCB (8082A)
B-672-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-04	☒ PCB (8082A)
B-673-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-05	☒ PCB (8082A)
B-674-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-06	☒ PCB (8082A)
B-675-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-07	☒ PCB (8082A)
B-676-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-08	☒ PCB (8082A)
B-677-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-09	☒ PCB (8082A)
B-678-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-10	☒ PCB (8082A)
B-679-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-11	☒ PCB (8082A)
B-680-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810706-12	☒ PCB (8082A)
B-680-102418-1 2FT	10/24/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-13	☒ PCB (8082A)
B-681-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-14	☒ PCB (8082A)
B-682-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-15	☒ PCB (8082A)
B-683-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-16	☒ PCB (8082A)
B-684-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-17	☒ PCB (8082A)
B-685-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-18	☒ PCB (8082A)
B-686-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810706-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 12: MS and MSD recoveries for Aroclor 1016 above QC limits. Sample 12 Aroclor 1248 and 1254 results are considered estimates (qualified with J).** (All RPDs within QC limit.)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) – **RPD for Aroclor 1254 in sample 02 above 40% QC limit; result is considered an estimate (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 03, 05, 07, 08, and 09, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810706

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-670-102418 2FT	PCBs	Aroclor 1254	0.07	mg/kg	**0.07 J**	DC
B-680-102418 2FT	PCBs	Aroclor 1248	0.9	mg/kg	**0.9 J**	AM
		Aroclor 1254	0.4	mg/kg	**0.4 J**	AM

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810707**; Report Issued **December 4, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-651-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-01	☒ PCB (8082A)
B-652-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-02	☒ PCB (8082A)
B-653-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-03	☒ PCB (8082A)
B-654-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-04	☒ PCB (8082A)
B-655-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-05	☒ PCB (8082A)
B-656-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-06	☒ PCB (8082A)
B-657-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-07	☒ PCB (8082A)
B-658-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-08	☒ PCB (8082A)
B-659-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-09	☒ PCB (8082A)
B-660-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810707-10	☒ PCB (8082A)
B-660-102418-1 2FT	10/24/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-11	☒ PCB (8082A)
B-661-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-12	☒ PCB (8082A)
B-662-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-13	☒ PCB (8082A)
B-663-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-14	☒ PCB (8082A)
B-664-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-15	☒ PCB (8082A)
B-665-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-16	☒ PCB (8082A)
B-666-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-17	☒ PCB (8082A)
B-667-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-18	☒ PCB (8082A)
B-668-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810707-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 10: MS recovery, primary column for Aroclor 1016, above QC limits. Sample 10 Aroclor 1248 result, reported from primary column, is considered an estimate (qualified with J).** Aroclor 1254 result reported from secondary column (acceptable recoveries); no qualification to data. All RPDs within QC limit.
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPDs for Aroclor 1248 and 1254 in samples 10/11 above QC limit; these results are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 04, 06, 16, and 19, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For sample 05, all results reported from the diluted run (20x), with RLs raised. RLs for all ND results in sample 05 were below PAL (RL 1.1 mg/kg for sample 05; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810707

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-660-102418 2FT	PCBs	Aroclor 1248	0.2	mg/kg	**0.2 J**	AM, DU
		Aroclor 1254	0.2	mg/kg	**0.2 J**	DU
B-660-102418-1 2FT	PCBs	Aroclor 1248	0.05 U	mg/kg	0.05 UJ	DU
		Aroclor 1254	0.5	mg/kg	**0.5 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810745**; Report Issued **December 4, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-265-102518 4FT	10/25/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-01	☒ PCB (8082A)
B-266-102518 4FT	10/25/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-02	☒ PCB (8082A)
B-267-102518 0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-03	☒ PCB (8082A)
B-268-102518 0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-04	☒ PCB (8082A)
B-269-102518 0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-05	☒ PCB (8082A)
B-270-102518 0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-06	☒ PCB (8082A)
SW-214-102518 0-3FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-07	☒ PCB (8082A)
SW-215-102518 0-3FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-08	☒ PCB (8082A)
SW-216-102518 0-3FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-09	☒ PCB (8082A)
SW-217-102518 0-0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-10	☒ PCB (8082A)
SW-218-102518 0-0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-11	☒ PCB (8082A)
SW-219-102518 0-0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-12	☒ PCB (8082A)
SW-220-102518 0-0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-13	☒ PCB (8082A)
SW-221-102518 0-0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-14	☒ PCB (8082A)
SW-222-102518 0-0.5FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-15	☒ PCB (8082A)
SW-223-102518 4FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-16	☒ PCB (8082A)
SW-224-102518 4FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-17	☒ PCB (8082A)
B-738-102518 1FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810745-18	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for samples 04-06, 08-12, 15, 17, and 18 (primary run) diluted below MRL. No qualification indicated. **The DCB and TMX surrogate recoveries for sample 01 (both columns) were below QC limits; all sample 01 results (all ND) are considered estimates (qualified with UJ).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 03, 07, 13, 14, and 16, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 04-06, 08-12, 15, 17, and 18, all results reported from diluted runs (50x for samples 15 and 18; 20x for all remaining samples), with RLs raised. RLs for all ND results in samples 04-06, 08-12, 15, 17, and 18 were below PAL (maximum RL 2.7 mg/kg for sample 15; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810745

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-265-102518 4FT	PCBs	All PCB analytes	0.1 U	mg/kg	0.1 UJ	SB

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810746**; Report Issued **December 10, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-257-102518 3FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-01	☒ PCB (8082A)
B-258-102518 4FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-02	☒ PCB (8082A)
B-259-102518 3FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-03	☒ PCB (8082A)
B-260-102518 4FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810746-04	☒ PCB (8082A)
B-260-102518-1 4FT	10/25/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-05	☒ PCB (8082A)
B-261-102518 4FT	10/25/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-06	☒ PCB (8082A)
B-262-102518 4FT	10/25/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-07	☒ PCB (8082A)
B-263-102518 3FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-08	☒ PCB (8082A)
B-264-102518 4FT	10/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810746-09	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 01, 02, 08, and 09 (primary runs) diluted below MRL. No qualification indicated. Sample 03 DCB surrogate recoveries from secondary column (undiluted and diluted run) were below QC limits; all sample results reported from primary column (with acceptable recoveries); no data qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – **MS/MSD analyzed on sample 04: MS and MSD recoveries (all) above QC limits. Sample 04 Aroclor 1254 result is considered an estimate (qualified with J).**.
☐	☒	☐	Laboratory duplicate RPDs (if performed)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Field duplicate RPDs (if collected) - **RPD for Aroclor 1254 in samples 04/05 above QC limit; Aroclor 1254 results for samples 04 and 05 are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 03 and 04, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For sample 01, 02, 08, and 09, all results reported from the diluted run (50x for sample 2 and 20x for remaining samples), with RLs raised. RLs for all ND results in samples 01, 02, 08, and 09 were below PAL (maximum RL 2.7 mg/kg for sample 02; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810746

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-260-102518 4FT	PCBs	Aroclor 1254	6.8	mg/kg	**6.8 J**	AM, DU
B-260-102518-1 4FT	PCBs	Aroclor 1254	12.8	mg/kg	**1.8 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810784**; Report Issued **December 10, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-842-102618-A 10FT	10/26/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810784-01	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for sample 01 (primary run) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 01, all results reported from diluted run (20x), with RLs raised. RLs for all ND results in sample 01 were below PAL (RL 1.4 mg/kg for sample 01; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810784

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810825**; Report Issued **January 2, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-840-102918-A 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-01	☒ PCB (8082A)
B-794-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-02	☒ PCB (8082A)
B-798-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-03	☒ PCB (8082A)
B-841-102918-A 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-04	☒ PCB (8082A)
B-795-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-05	☒ PCB (8082A)
B-812-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-06	☒ PCB (8082A)
B-811-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-07	☒ PCB (8082A)
B-806-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-08	☒ PCB (8082A)
B-803-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-09	☒ PCB (8082A)
B-815-102918-B 13FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-10	☒ PCB (8082A)
SW-716-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-11	☒ PCB (8082A)
SW-717-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-12	☒ PCB (8082A)
SW-718-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-13	☒ PCB (8082A)
SW-719-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-14	☒ PCB (8082A)
SW-720-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-15	☒ PCB (8082A)
SW-721-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-16	☒ PCB (8082A)
SW-722-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-17	☒ PCB (8082A)
SW-723-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-18	☒ PCB (8082A)
SW-724-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-19	☒ PCB (8082A)
SW-725-102918 0-2FT	10/29/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810825-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 01, 06, and 17 (primary runs) diluted below MRL. No qualifications indicated. DCB surrogate recoveries for primary column in undiluted sample runs for 18, 19, and 20 were above QC limit (potential positive bias). For samples 18 and 20, there were no detected concentrations reported from undiluted samples runs (no qualifications indicated). For sample 19, as the detected Aroclor 1254 concentration was reported from secondary column (with acceptable surrogate recoveries), no qualifications are indicated. For sample 20, the DCB surrogate recovery for the primary column in the diluted sample run was above the QC limit. However, as the detected Aroclor 1254 concentration was reported from secondary column (with acceptable surrogate recoveries), no qualification is indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on sample 10. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 02-04, 12, 13, 15, 18, and 20 the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 01, 06, and 17, all results reported from diluted runs (100x, 500x, and 50x, respectively), with RLs raised. RLs for all ND results for samples 01 and 17 were below PALs (maximum RL 9.1 mg/kg for PCBs in sample 01; PAL = 25 mg/kg). RLs for sample 06 (38.2 mg/kg) were above the PAL, and therefore there was an impact on data sensitivity. **However, given that the elevated concentration in the sample required additional excavation, and as a result new confirmatory samples were collected, this does not indicate an impact on final confirmatory sample data sensitivity.**

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810825

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810863**; Report Issued **January 2, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-671-103018-A 7FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-01	☒ PCB (8082A)
B-680-103018-A 7FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-02	☒ PCB (8082A)
B-647-103018-A 5FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-03	☒ PCB (8082A)
B-648-103018-A 5FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-04	☒ PCB (8082A)
B-654-103018-A 6FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-05	☒ PCB (8082A)
B-655-103018-A 6FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-06	☒ PCB (8082A)
B-656-103018-A 6FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-07	☒ PCB (8082A)
B-657-103018-A 6FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-08	☒ PCB (8082A)
B-675-103018-A 5FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-09	☒ PCB (8082A)
B-676-103018-A 5FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-10	☒ PCB (8082A)
B-673-103018-A 5FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-11	☒ PCB (8082A)
B-696-103018-A 6FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-12	☒ PCB (8082A)
B-698-103018-A 5FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-13	☒ PCB (8082A)
B-701-103018-A 7FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-14	☒ PCB (8082A)
B-702-103018-A 7FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-15	☒ PCB (8082A)
B-705-103018-A 6FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-16	☒ PCB (8082A)
B-140-103018-C 8FT	10/30/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810863-17	☒ PCB (8082A)
B-140-103018-C-1 8FT	10/30/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810863-18	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries – **TMX surrogate recovery, primary column, in sample 16 above QC limit. Sample 16 Aroclor 1254 result, reported from primary column, is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 18: MS and MSD recoveries for Aroclor 1260 above QC limits. Sample 18 Aroclor 1254 result, is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPD for Aroclor 1254 in samples 17/18 above QC limit; Aroclor 1254 results in samples 17 and 18 are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on sample 12. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 11 and 18, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810863

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-705-103018-A 6FT	PCBs	Aroclor 1254	0.5	mg/kg	**0.5 J**	SA
B-140-103018-C 8FT	PCBs	Aroclor 1254	1.0	mg/kg	**1.0 J**	DU, AM
B-140-103018-C-1 8FT	PCBs	Aroclor 1254	1.7	mg/kg	**1.7 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810901**; Report Issued **January 2, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-152-103118-B 10.5FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-01	☒ PCB (8082A)
B-155-103118-B 10.5FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-02	☒ PCB (8082A)
B-154-103118-B 10.5FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-03	☒ PCB (8082A)
B-149-103118-B 10.5FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-04	☒ PCB (8082A)
B-145-103118-B 10.5FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-05	☒ PCB (8082A)
B-700-103118-A 6FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-06	☒ PCB (8082A)
B-665-103118-A 6FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-07	☒ PCB (8082A)
B-934-103118-A 6FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-08	☒ PCB (8082A)
B-935-103118-A 6FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-09	☒ PCB (8082A)
B-938-103118-A 6FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-10	☒ PCB (8082A)
SW-476-103118-A 0-4FT	10/31/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810901-11	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 01 through 05 (primary runs) diluted below MRL. No qualifications indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 08 the only reporting limits raised were for the detected Aroclor. No impact on data sensitivity. For samples 01 through 05, all results reported from diluted runs (100x for sample 04, 50x for remainder), with RLs raised. RLs for all ND results for samples 01 through 05 were below PALs (maximum RL 6.6 mg/kg for PCBs in sample 04; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810901

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811019**; Report Issued **January 2, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-460-110118-B 6.5FT	11/1/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811019-01	☒ PCB (8082A)
B-366-110118-B 9FT	11/1/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811019-02	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for sample 01 (primary run) diluted below MRL. No qualifications indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 01, all results reported from diluted run (100x), with RLs raised. RLs for all ND results in sample 01 were below PAL (RL 6.5 mg/kg for PCBs in sample 01; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811019

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811063**; Report Issued **January 4, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-698-110218-B 7FT	11/2/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811063-01	☒ PCB (8082A)
B-673-110218-B 5.5FT	11/2/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811063-02	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 02, only reporting limit raised was for detected Aroclor. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811063

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811097**; Report Issued **January 4, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-296-110518-A 3FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-01	☒ PCB (8082A)
B-297-110518-A 3FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-02	☒ PCB (8082A)
B-292-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-03	☒ PCB (8082A)
B-293-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-04	☒ PCB (8082A)
B-294-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-05	☒ PCB (8082A)
B-295-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-06	☒ PCB (8082A)
B-302-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-07	☒ PCB (8082A)
B-303-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-08	☒ PCB (8082A)
B-304-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-09	☒ PCB (8082A)
B-310-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-10	☒ PCB (8082A)
B-311-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-11	☒ PCB (8082A)
B-312-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-12	☒ PCB (8082A)
B-313-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-13	☒ PCB (8082A)
B-314-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-14	☒ PCB (8082A)
B-285-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-15	☒ PCB (8082A)
B-286-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-16	☒ PCB (8082A)
B-287-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-17	☒ PCB (8082A)
B-319-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-18	☒ PCB (8082A)
B-923-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-19	☒ PCB (8082A)
B-924-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811097-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☒	Surrogate recoveries - **DCB surrogate recoveries in sample 13 above QC limit. Sample 13 Aroclor 1268 result is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis)

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811097

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-313-110518-A 5FT	PCBs	Aroclor 1268	0.9	mg/kg	**0.9 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811098**; Report Issued **January 28, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-928-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-01	☒ PCB (8082A)
B-929-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-02	☒ PCB (8082A)
B-930-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-03	☒ PCB (8082A)
B-290-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-04	☒ PCB (8082A)
B-283-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-05	☒ PCB (8082A)
B-284-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-06	☒ PCB (8082A)
B-277-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-07	☒ PCB (8082A)
B-278-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-08	☒ PCB (8082A)
B-272-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-09	☒ PCB (8082A)
B-273-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-10	☒ PCB (8082A)
B-559-110518-D 6FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-11	☒ PCB (8082A)
B-459-110518-B 8FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811098-12	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 11 and 12 (primary runs) diluted below MRL. No qualifications indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) - **RPDs for Aroclor 1254 in samples 05, 07, and 09 above 40% QC limit; results are considered estimates (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For samples 04, 06, and 08, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 11 and 12, all results reported from the diluted runs (100x and 20x, respectively), with RLs raised. RLs for all ND results in samples 11 and 12 were below PAL (maximum RL 6.4 mg/kg for sample 11; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811098

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-283-110518-A 5FT	PCBs	Aroclor 1254	0.2	mg/kg	**0.2 J**	DC
B-277-110518-A 5FT	PCBs	Aroclor 1254	0.09	mg/kg	**0.09 J**	DC
B-272-110518-A 5FT	PCBs	Aroclor 1254	0.08	mg/kg	**0.08 J**	DC

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811099**; Report Issued **January 4, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-274-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811099-01	☒ PCB (8082A)
B-274-110518-A-1 5FT	11/05/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811099-02	☒ PCB (8082A)
B-279-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811099-03	☒ PCB (8082A)
B-279-110518-A-1 5FT	11/05/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811099-04	☒ PCB (8082A)
B-280-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811099-05	☒ PCB (8082A)
B-281-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811099-06	☒ PCB (8082A)
B-301-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811099-07	☒ PCB (8082A)
B-926-110518-A 5FT	11/05/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811099-08	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness – COC did not indicate a requested analysis for samples 07 and 08; presumed correct based on jar labels.
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 01: MS recoveries for Aroclor 1016, and RPDs for Aroclor 1016 and 1260 above QC limits. Sample 01 Aroclor 1254 result is considered an estimate (qualified with J).** **MS/MSD analyzed on sample 03: MS recovery for Aroclor 1016 (Primary column), and MS and MSD recoveries for Aroclor 1260 (secondary column) above QC limits. Sample 02 Aroclor 1254 result is considered an estimate (qualified with J).**

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPD for Aroclor 1254 in samples 01/02 above QC limit; Aroclor 1254 results in samples 01 and 02 are considered estimates (qualified with J).** **RPD for Aroclor 1254 in samples 03/04 above QC limit; Aroclor 1254 results in samples 03 and 04 are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 01, the only reporting limit raised was for the detected Aroclor. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811099

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-274-110518-A 5FT	PCBs	Aroclor 1254	3.8	mg/kg	**3.8 J**	DU, AM
B-274-110518-A-1 5FT	PCBs	Aroclor 1254	1.1	mg/kg	**1.1 J**	DU
B-279-110518-A 5FT	PCBs	Aroclor 1254	0.8	mg/kg	**0.8 J**	DU, AM
B-279-110518-A-1 5FT	PCBs	Aroclor 1254	0.2	mg/kg	**0.2 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811126**; Report Issued **January 4, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-842-110618-B 15FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-01	☒ PCB (8082A)
B-841-110618-B 15FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-02	☒ PCB (8082A)
B-840-110618-B 15FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-03	☒ PCB (8082A)
B-794-110618-C 15FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-04	☒ PCB (8082A)
B-798-110618-C 15FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-05	☒ PCB (8082A)
B-812-110618-C 15FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-06	☒ PCB (8082A)
B-460-110618-C 8FT	11/06/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811126-07	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for sample 01 (primary run) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 03, 05, and 05, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For sample 01, all results reported from diluted run (50x), with RLs raised. RLs for all ND results in sample 01 were below PAL (RL 4.1 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811126

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811171**; Report Issued **January 4, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-738-110718-A 1.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811171-01	☒ PCB (8082A)
B-738-110718-A-1 1.5FT	11/07/2018	☐ Soil ☒ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-02	☒ PCB (8082A)
B-724-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-03	☒ PCB (8082A)
B-725-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-04	☒ PCB (8082A)
B-731-110718-A 4.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-05	☒ PCB (8082A)
B-668-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-06	☒ PCB (8082A)
B-677-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-07	☒ PCB (8082A)
B-939-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-08	☒ PCB (8082A)
B-940-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-09	☒ PCB (8082A)
B-925-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-10	☒ PCB (8082A)
B-282-110718-A 2.5FT	11/07/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-11	☒ PCB (8082A)
B-288-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-12	☒ PCB (8082A)
B-466-110718-A 2.5FT	11/07/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-13	☒ PCB (8082A)
SW-565-110718-B 4-8FT	11/07/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-14	☒ PCB (8082A)
SW-579-110718-B 4-7FT	11/07/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-15	☒ PCB (8082A)
SW-583-110718-B 4-7FT	11/07/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811171-16	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for sample 15 (primary run) diluted below MRL. No qualification indicated. **DCB and TMX surrogate recoveries in sample 08 and 13 below QC limit. All results (and ND) in samples 08 and 13 are considered estimates (qualified with UJ). Note that laboratory re-extracted and re-analyzed both samples; same ND results, with TMX surrogates still below QC limit (confirming QC issue).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 01: All MS recoveries below QC limits and all RPDs above QC limits. Sample 01 results considered estimates (qualified with J/UJ).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPD for Aroclor 1254 in samples 01/02 above QC limit; Aroclor 1254 results in samples 01 and 02 are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 01, the only reporting limit raised was for the detected Aroclor. No impact on data sensitivity. For sample 15, all results reported from diluted run (100x), with RLs raised. RLs for all ND results in sample 01 were below PAL (RL 3.4 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811171

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-738-110718-A 1.5FT	PCBs	Aroclor 1254	7.0	mg/kg	**7.0 J**	DU, BM, MR
		All remaining aroclors	0.1 U	mg/kg	0.1 UJ	BM, MR
B-738-110718-A-1 1.5FT	PCBs	Aroclor 1254	0.5	mg/kg	**0.5 J**	DU
B-939-110718-A 2.5FT	PCBs	All aroclors	0.1 U	mg/kg	0.1 UJ	SB
B-466-110718-A 2.5FT	PCBs	All aroclors	0.1 U	mg/kg	0.1 UJ	SB

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811209**; Report Issued **January 4, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-298-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-01	☒ PCB (8082A)
B-299-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-02	☒ PCB (8082A)
B-300-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-03	☒ PCB (8082A)
B-307-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-04	☒ PCB (8082A)
B-308-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-05	☒ PCB (8082A)
B-309-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-06	☒ PCB (8082A)
B-316-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-07	☒ PCB (8082A)
B-317-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-08	☒ PCB (8082A)
B-318-110818-A 2.5FT	11/8/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-09	☒ PCB (8082A)
SW-635-110818 2-6FT	11/8/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-10	☒ VOC (8260B)
SW-640-110818 2-6FT	11/8/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811209-11	☒ VOC (8260B)
SW-640-110818-1 2-6FT	11/8/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-12	☒ VOC (8260B)
SW-620-110818 2-6FT	11/8/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-13	☒ VOC (8260B)
SW-625-110818 2-6FT	11/8/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-14	☒ VOC (8260B Low)
SW-630-110818 2-6FT	11/8/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811209-15	☒ VOC (8260B)
TB	n/a	☐ Soil ☒ SOLID	☐ FD ☐ MS/MSD ☐ EB ☒ TB	1811209-16	☒ VOC (8260B, 8260B Low)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Data completeness - **Several VOC results reported between MDL and MRL. These results considered estimates and qualified with J by lab, and qualifier carried over by validation.**
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries – PCBs: TMX surrogate for sample 02, primary column, below QC limit; As secondary column recoveries acceptable, and no concentrations detected in either column, no qualification to data is indicated. High-Level VOCs: Surrogates for sample 13 and 15, diluted runs (100x) above QC limits, due to dilution. As undiluted run surrogate recoveries were within limits, no qualification to data is indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs) – Within low-level VOC analysis, LCS and LCSD recoveries for tetrahydrofuran, and LCSD recovery for Acetone were above QC limits; however, as these compounds were not detected within the associated samples, the potential positive bias indicated by the LCS and LCSD recoveries does not indicate a QC issue, and no qualification to sample data is indicated. All RPDs within QC limits.
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – MS/MSD analysis performed on sample 11 for high-level VOCs. MS recovery for 2-chlorotoluene above QC limit; however, as native sample result > 4X spike level, recovery as a QC result is not valid, and no qualification was applied to data. All other recoveries and all RPDs within QC limits.
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☒	☐	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures) – For PCBs: C8K0182-CCV2 %D for Aroclor 1016, secondary column, %D above maximum QC limit; however, as the CCV ended an analytical batch for QC samples only (method blank, LCS), no qualification to sample data is indicated.
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☒	☐	☐	Mass spectrometer tuning (GC/MS only)
☒	☐	☐	Internal standard performance (GC/MS only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For samples 13 and 15 high-level VOC analysis, the only reporting limits raised were for the detections of 2-chlrotoluene. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811209

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-635-110818 2-6FT	VOCs	Toluene	0.106 J	mg/kg	**0.106 J**	RL
		o-Xylene	0.0315 J	mg/kg	**0.0315 J**	RL
		m,p-Xylenes	0.0552 J	mg/kg	**0.0552 J**	RL
SW-640-110818 2-6FT	VOCs	o-Xylene	0.0245 J	mg/kg	**0.0245 J**	RL
		m,p-Xylenes	0.0491 J	mg/kg	**0.0491 J**	RL
SW-640-110818-1 2-6FT	VOCs	o-Xylene	0.0192 J	mg/kg	**0.0192 J**	RL
		m,p-Xylenes	0.0559 J	mg/kg	**0.0559 J**	RL
SW-620-110818 2-6FT	VOCs	Ethylbenzene	0.0279 J	mg/kg	**0.0279 J**	RL
		Toluene	0.0156 J	mg/kg	**0.0156 J**	RL
		o-Xylene	0.124 J	mg/kg	**0.124 J**	RL
		m,p-Xylenes	0.293 J	mg/kg	**0.293 J**	RL
SW-630-110818 2-6FT	VOCs	1,2-Dichlorobenzene	0.0388 J	mg/kg	**0.0388 J**	RL
		Ethylbenzene	0.0275 J	mg/kg	**0.0275 J**	RL
		Naphthalene	0.126 J	mg/kg	**0.126 J**	RL
		o-Xylene	0.110 J	mg/kg	**0.110 J**	RL
		m,p-Xylenes	0.278 J	mg/kg	**0.278 J**	RL

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811261**; Report Issued **January 8, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-64-110918-C 4-6FT	11/09/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811261-01	☒ PCB (8082A)
SW-77-110918-C 4-6FT	11/09/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811261-02	☒ PCB (8082A)
B-559-110918-E 9.5FT	11/09/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811261-03	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 01 and 02 (primary runs) diluted below MRL. No qualification indicated. DCB surrogate for sample 03, primary column, above QC limit, indicating potential positive bias. As the only detected result in the sample was taken from secondary column, no qualification is indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01 and 02, all results reported from diluted run (20x), with RLs raised. RLs for all ND results in samples 01 and 02 were below PAL (RL=0.6 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811261

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811303**; Report Issued **January 8, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
W-28-111218 0-2FT	11/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811303-01	☒ PCB (8082A)
W-27-111218 0-2FT	11/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811303-02	☒ PCB (8082A)
SW-244-111218-A 0-2FT	11/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811303-03	☒ PCB (8082A)
SW-243-111218-A 0-2FT	11/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811303-03	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 04, the only reporting limit raised was for the detected Aroclor. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811303

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811314**; Report Issued **January 8, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-579-111318-C 4-7FT	11/13/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811314-01	☒ PCB (8082A)
B-837-111318 4FT	11/13/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811314-02	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis)

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811314

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811370**; Report Issued **January 8, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-73-111418 3FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-01	☒ PCB (8082A)
B-74-111418 3FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-02	☒ PCB (8082A)
B-75-111418 3FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-03	☒ PCB (8082A)
B-76-111418 3FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-04	☒ PCB (8082A)
SW-63-111418 0-3FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-05	☒ PCB (8082A)
SW-61-111418 0-3FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-06	☒ PCB (8082A)
SW-722-111418-A 0-2FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-07	☒ PCB (8082A)
B-412-111418-A 4.5FT	11/14/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-08	☒ PCB (8082A)
B-349-111418-A 4.5FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-09	☒ PCB (8082A)
B-359-111418-A 4.5FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-10	☒ PCB (8082A)
B-403-111418-A 5FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-11	☒ PCB (8082A)
B-360-111418-B 5FT	11/14/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-12	☒ PCB (8082A)
B-371-111418-B 5FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-13	☒ PCB (8082A)
B-382-111418-B 5FT	11/14/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811370-14	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 01-04, 06, 09, 13, and 14 (primary runs) diluted below MRL. No qualification indicated. DCB surrogate recoveries for secondary columns in undiluted sample runs for samples 05 and 07 were above QC limit (potential positive bias). However, the only detected results in these samples were taken from diluted runs, for which all surrogate recoveries were within limits. No qualification indicated.

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For samples 05, 07, and 10, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 01-04, 06, 09, 13, and 14, all results reported from diluted runs (20x, 50x, 50x, 50x, 50x, 50x, 200x, and 20x), with RLs raised. RLs for all ND results in samples 01-04, 06, 09, 13, and 14 were below PAL (maximum RL 12.2 mg/kg for sample 13; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811370

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811407**; Report Issued **January 8, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-243-111518-B 0-2FT	11/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811407-01	☒ PCB (8082A)
SW-494-111518-C 0-2FT	11/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811407-02	☒ PCB (8082A)
SW-495-111518-C 0-2FT	11/15/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811407-03	☒ PCB (8082A)
SW-515-111518-B 0-2FT	11/15/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811407-04	☒ PCB (8082A)
B-738-111518-B 0-2FT	11/15/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811407-05	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☒	Surrogate recoveries - Surrogates for sample 02 (primary run) diluted below MRL. No qualification indicated. DCB surrogate recovery for secondary column in undiluted sample run for sample 03 was above QC limit (potential positive bias). However, the only detected result in this sample was taken from diluted run, for which all surrogate recoveries were within limits. No qualification indicated. **DCB surrogate recovery for primary column in diluted sample run for sample 04 was above QC limit (potential positive bias). The only detected result in this sample was taken from diluted run primary column; detected Aroclor 1254 result for sample 04 is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For samples 03 and 04, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For sample 02, all results reported from diluted run (50x), with RLs raised. RLs for all ND results in sample 02 were below PAL (1.4 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811407

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-515-111518-B 0-2FT	PCBs	Aroclor 1254	6.2	mg/kg	**6.2 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811477**; Report Issued **January 16, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
W-21 0-2FT	11/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811477-01	☒ PCB (8082A)
W-21-1 0-2FT	11/19/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811477-02	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation – Sample temperature slightly elevated above 0-6 degree Celsius expected preservation range; however, the laboratory recorded temperature less than 2 hours after sample collection, and thus the samples were still cooling down (on ice). No qualification is indicated.
☒	☐	☐	Surrogate recoveries - Surrogates for sample 02 (primary run) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) – **Samples 01/02 Aroclor 1248 RPD above maximum QC limit; results are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For sample 01, the only reporting limit raised was for the detected Aroclor. No impact on data sensitivity. For sample 02, all results reported from diluted run (20x), with RLs raised. RLs for all ND results in sample 02 were below PAL (0.6 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811477

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
W-21 0-2FT	PCBs	Aroclor 1248	6.2	mg/kg	**6.2 J**	DU
W-21-1 0-2FT	PCBs	Aroclor 1248	10.5	mg/kg	**10.5 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811519**; Report Issued **January 16, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-828-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-01	☒ PCB (8082A)
B-833-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-02	☒ PCB (8082A)
B-829-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811519-03	☒ PCB (8082A)
B-829-112018-1 3FT	11/20/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-04	☒ PCB (8082A)
B-834-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811519-05	☒ PCB (8082A)
B-834-112018-1 3FT	11/20/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-06	☒ PCB (8082A)
B-830-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811519-07	☒ PCB (8082A)
B-830-112018-1 3FT	11/20/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-08	☒ PCB (8082A)
B-835-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811519-09	☒ PCB (8082A)
B-835-112018-1 3FT	11/20/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-10	☒ PCB (8082A)
B-831-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811519-11	☒ PCB (8082A)
B-831-112018-1 3FT	11/20/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-12	☒ PCB (8082A)
B-836-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1811519-13	☒ PCB (8082A)
B-836-112018-1 3FT	11/20/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1811519-14	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for sample 02 (primary run) diluted below MRL. No qualification indicated. For sample 04, the diluted run DCB surrogate recovery for the secondary column was above QC limit, but as this sample is a field duplicate, and the primary sample surrogates were all within limits, with good RPDs between primary and field duplicate, no qualification is given to data based on duplicate sample surrogate recovery. **For samples 07, 08, 10, 11, and 12, the diluted runs DCB surrogate recovery for the secondary columns were all above QC limit. For each sample, the Aroclor 1260 results were reported from the diluted run, secondary column; samples 07, 08, 10, 11, and 12 Aroclor 1260 results are considered estimates (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - Samples 03, 05, 07, 09, 11, and 13 were requested and run for MS/MSD analysis. The majority of results were marked by laboratory as "MT", indicating matrix spike analyte results masked due to high target values; therefore, these results were not valid as QC indicators. No qualifications indicated.
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) – RPDs for samples 03/04, 05/06, and 11/12 field duplicate pairs are all below the maximum QC limit. **RPDs exceeded the maximum QC limit for samples 09/10 Aroclors 1242, 1254, and 1260, and samples 13/14, Aroclor 1260; results are considered estimates (qualified with J).**
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) – **Dual column RPDs exceeded the 40% maximum limit for sample 03 Aroclor 1242 and sample 14 Aroclor 1260; results are considered estimates (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures) – Although there was one elevated %D in a CCV, it occurred after last CCV bracketing samples. No qualification indicated.
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For samples 01 and 03-14, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For sample 02, all results reported from diluted run (50x), with RLs raised. RLs for all ND results in sample 02 were below PAL (2.9 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811519

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-829-112018 3FT	PCBs	Aroclor 1242	6.4	mg/kg	**6.4 J**	DC
B-830-112018 3FT	PCBs	Aroclor 1260	4.9	mg/kg	**4.9 J**	SA
B-830-112018-1 3FT	PCBs	Aroclor 1260	5.7	mg/kg	**5.7 J**	SA
B-835-112018 3FT	PCBs	Aroclor 1242	2.2	mg/kg	**2.2 J**	DU
		Aroclor 1254	3.0	mg/kg	**3.0 J**	DU
		Aroclor 1260	2.1	mg/kg	**2.1 J**	DU
B-835-112018-1 3FT	PCBs	Aroclor 1242	5.5	mg/kg	**5.5 J**	DU
		Aroclor 1254	5.2	mg/kg	**5.2 J**	DU
		Aroclor 1260	4.5	mg/kg	**4.5 J**	DU, SA
B-831-112018 3FT	PCBs	Aroclor 1260	1.5	mg/kg	**1.5 J**	SA
B-831-112018-1 3FT	PCBs	Aroclor 1260	1.2	mg/kg	**1.2 J**	SA
B-836-112018 3FT	PCBs	Aroclor 1260	1.2	mg/kg	**1.2 J**	DU
B-836-112018-1 3FT	PCBs	Aroclor 1260	0.3	mg/kg	**0.3 J**	DC, DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1811520**; Report Issued **January 16, 2019**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-832-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-01	☒ PCB (8082A)
B-838-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-02	☒ PCB (8082A)
B-824-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-03	☒ PCB (8082A)
B-822-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-04	☒ PCB (8082A)
B-825-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-05	☒ PCB (8082A)
B-823-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-06	☒ PCB (8082A)
B-826-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-07	☒ PCB (8082A)
B-827-112018 3FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-08	☒ PCB (8082A)
SW-592-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-09	☒ PCB (8082A)
SW-591-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-10	☒ PCB (8082A)
SW-590-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-11	☒ PCB (8082A)
SW-589-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-12	☒ PCB (8082A)
SW-588-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-13	☒ PCB (8082A)
SW-587-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-14	☒ PCB (8082A)
SW-586-112018 0-2FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-15	☒ PCB (8082A)
B-371-112018-C 7FT	11/20/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1811520-16	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries - Surrogates for samples 03, 05, 07, 10, 11, and 13 (primary runs) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) - For samples 01, 02, 04, 06, 09, and 16, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 03, 05, 07, 10, 11, and 13, all results reported from diluted runs (100x for sample 10, remainder at 20x), with RLs raised. RLs for all ND results in samples 03, 05, 07, 10, 11, and 13 were below PAL (maximum RL=5.9 mg/kg for sample 10; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1811520

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.